

DOCKET SECTION

NAA-T-1

RECEIVED
DEC 30 2 59 PM '97
FEDERAL BUREAU OF INVESTIGATION
OFFICE OF THE ATTORNEY GENERAL

BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268-0001

POSTAL RATE AND FEE CHANGES, 1997

)
) Docket No. R97-1
)

DIRECT TESTIMONY OF

SHARON L. CHOWN

ON BEHALF OF

THE NEWSPAPER ASSOCIATION OF AMERICA

Dated: December 30, 1997

1 I. QUALIFICATIONS

2 My name is Sharon L. Chown. I am a Principal and co-founder of Industrial
3 Economics, Incorporated (IEc). My office is located at 2067 Massachusetts Avenue,
4 Cambridge, Massachusetts 02140. I am a regulatory economist, specializing in utility
5 cost allocation, rate design and restructuring. Since co-founding IEc in September
6 1981, I have been engaged in numerous studies pertaining to these issues and have
7 testified before Federal, provincial and state commissions.

8 I have testified before the Postal Rate Commission in Dockets No. R84-1, C87-2,
9 R87-1, R90-1 and MC95-1. I have also testified on several occasions before regulatory
10 boards in Canada (Alberta, Manitoba, Ontario, Quebec, Nova Scotia and New
11 Brunswick) on cost allocation, rate design and industry restructuring in the natural gas
12 and electric utility industries.

13 I was previously employed as a Consultant at Putnam, Hayes & Bartlett, Inc.
14 (PHB) and at Data Resources, Inc. (DRI). At PHB I performed studies of electric and
15 gas utilities, including the various aspects of cost allocation and rate design. At DRI I
16 participated in telecommunication rate cases before several state public utility
17 commissions.

18 I received a Bachelor of Science degree in Mathematics, with an emphasis in
19 Statistics, for the University of California, Davis and a Masters of Science in Industrial
20 Administration from Carnegie-Mellon University.

II. INTRODUCTION AND SUMMARY

On behalf of the Newspaper Association of America, I was asked to review the direct testimony of the Postal Service witnesses in Docket No. R97-1. As a result of this review, I recommend an alternative metric—*total weighted attributable costs*—that will allow the Commission to better gauge the appropriate level of the institutional costs to be borne by each subclass of mail. As explained in this evidence, this metric explicitly accounts for both differences in the mix of postal functions (i.e., mail processing, window service, transportation and delivery) used by each subclass of mail and differences in the level of institutional costs associated with providing each of the different functions of the Postal Service.¹ This proposal is a refinement of the proposal I put forward in Docket No. R90-1.

My testimony begins with a review of the problems associated with the Commission's current metric for assessing the appropriate level of institutional costs to be borne by each subclass. I then briefly review the unbundled institutional cost assignment I proposed in Docket No. R90-1. Finally, my testimony presents my alternative metric for gauging the appropriateness of the institutional cost burdens of each subclass.

III. CURRENT INSTITUTIONAL COST ASSIGNMENT

To determine the institutional costs to be borne by each subclass of mail, the Postal Service computes the total attributable costs for each subclass and applies a

¹ By definition, institutional costs are costs that are not causally related to any particular subclass. However, institutional costs can be related to the provision of a particular function of the Postal Service. The institutional costs incurred to provide a particular function should be paid by the subclasses of mail that use that function.

1 "markup" or "cost coverage" to these costs. These markups are based upon a
2 subjective assessment of the factors in Section 3622(b) of the Postal Reorganization
3 Act.

4 The total attributable costs for each subclass represent the sum of the
5 attributable costs for each of the functions provided by the Postal Service. The Postal
6 Service provides four basic functions—mail processing, window services, delivery and
7 transportation.² In the past, mailers purchased these four functions as a single
8 package. In recent years, however, it is increasingly possible for mailers to purchase
9 different mixes of these basic functions by relying on alternative suppliers for mail
10 processing and transportation; and availing themselves of the worksharing discounts
11 now offered by the Postal Service. As these worksharing discounts have increased in
12 both number and the amount, the mixes of the functions used by the different
13 subclasses of mail have changed.

14 One outcome of the introduction of discounts into the rate structures is the high
15 "implicit" markups for certain categories of presorted and dropshipped mail. Because
16 institutional cost markups are determined for subclasses of mail and not for individual
17 categories of mail, the Commission has historically given little or no direct weight to the
18 high "implicit" markups of these categories of presorted mail. (See, for example, Postal
19 Rate Commission, *Opinion and Recommended Decision*, Docket No. MC95-1, ¶ 3069-
20 3073.)

21 In Docket No. MC95-1, Standard A Enhanced Carrier Route (ECR) mail was
22 determined to meet the criteria for a separate subclass. Identification of this mail as a
23 subclass means that the Commission now needs to separately assess the appropriate
24 institutional cost contribution for this mail. As such, it is important that the Commission

² In Docket No. R90-1, I identified three basic functions as I did not include window service as a separate function. Given the disproportionate use of window services by First-Class mailers, it is useful to separately identify these costs.

1 have an explicit method of accounting for the fact that ECR mail has very low
2 attributable costs for some of the postal functions due to the heavily presorted and
3 dropshipped nature of this mail; and that the attributable costs of ECR mail are
4 predominately delivery costs -- a function that accounts for a large share of the
5 institutional costs of the Postal Service.

6 Problems with Current Method of Assigning Institutional Costs

7 As I pointed out in Docket No. R90-1, applying the markup or cost coverage to a
8 single pool of total attributable costs for each subclass ignores the relative mix of the
9 different postal functions used by each subclass and the contribution of each of these
10 functions to the total institutional costs of the Postal Service. This markup method can
11 result in a low institutional cost assignment for a subclass of mail that primarily uses
12 mail functions for which few of the costs are attributed, even if the provision of these
13 functions causes the Postal Service to incur substantial institutional costs. Conversely,
14 a subclass that makes greater use of the postal functions with high attributable costs
15 will be assigned a greater share of the institutional costs of the Postal Service when
16 using the current method for assigning institutional costs.

17 Applying a markup to total attributable costs is appropriate only if (1) all mailers
18 buy approximately the same mix of the four basic functions or (2) the ratio of
19 institutional costs to attributable costs is relatively constant across all four functions. As
20 demonstrated below, neither of these conditions is true in today's postal environment.

1 1. Mix of Attributable Costs by Subclass

2 Exhibits NAA-1A and NAA-1B present the Postal Service's total attributable
3 costs for each of the four functions.³ These functions are defined as follows:

- 4 • Mail Processing Cost Segments 3.1 and 4
- 5 • Window Service Cost Segment 3.2
- 6 • Transportation Cost Segment 14
- 7 • Delivery Cost Segment 6, 7, 8, 9 and 10

8 A summary of the total attributable costs by function is provided below.⁴

³ For purposes of illustration only, I have used the Postal Service's volume variable costs as my measure of attributable costs in my testimony. My proposal is equally applicable to alternative measures of attributable costs.

⁴ In Exhibit NAA-1A, the appropriate piggyback factors and the contingency fee are applied to the direct labor costs in each cost segment to derive the total costs associated with the different functions of the Postal Service. The piggyback factors can be found in Library Reference H-77.

The remaining cost segments include the costs of the support functions such as supervisory time, benefits, and space and utilities which are captured in the piggyback factors and the costs of corporate-wide functions such as postmasters and headquarters personnel.

Table 1 Distribution of Total USPS Attributable Costs by Function		
Function	Attributable Costs	Percent of Total Attributable Costs
Mail Processing	\$17,184,862	50.08%
Window Service	1,400,548	4.08%
Transportation	3,808,826	11.10%
Delivery	9,938,214	28.96%
Other Costs & Adjustments	1,983,222	5.78%
Total Attributable Cost	\$34,315,672	100.00%

As shown above, mail processing costs comprise 50 percent of the total attributable costs, while delivery costs account for 29 percent of the total attributable costs of the Postal Service. The remaining two functions—window service and transportation—account for 4 percent and 11 percent of the total attributable costs, respectively.

Exhibit NAA-1B also shows the mix of functions used by each subclass.⁵ As can be seen in this exhibit, the mix of functions differs substantially among the various subclasses of mail.

For example, the table below compares the percentage of attributable costs by function for First-Class letter mail and Standard A Commercial ECR mail.

⁵ Page 1 of Exhibit NAA-1B summarizes the total attributable cost by function for each subclass of mail. Page 2 of Exhibit NAA-1B provides the percentage mix of the different functions used by each subclass of mail.

Table 2		
Distribution of Total USPS Attributable Costs for Individual Subclasses by Function		
Function	First-Class Letter Mail	Standard A Commercial ECR Mail
Mail Processing	57.94%	22.69%
Window Service	4.68%	0.45%
Transportation	5.36%	3.25%
Delivery	26.05%	71.66%
Other Costs & Adjustments	5.96%	1.95%
Total Attributable Cost	100.00%	100.00%

As shown above, mail processing costs comprise almost 58% of the attributable costs of First-Class letter mail; whereas, delivery costs account for approximately 26% of the attributable costs of this mail. In contrast, Standard A Commercial ECR mail is presorted to the carrier route and much of this mail is also dropshipped to the destination offices. As a result of these worksharing efforts, a large portion of mail processing and transportation costs are avoided. Hence, mail processing costs account for less than 23% of the attributable costs of Standard A Commercial ECR mail; while over 70 percent of the attributable costs of this mail are the costs associated with the delivery function.

A review of the other subclasses in Exhibit NAA-1B, page 2 reveals significant differences in the mix of the functions used by other subclasses, as well. For example, over 35 percent of the attributable costs of priority mail are transportation costs. Similarly, 43 percent of the attributable costs of parcel post are transportation costs. Also, while only 23% of the attributable costs of Standard A Commercial ECR mail are mail processing costs, almost 58 percent of the attributable costs of Standard A Commercial Regular mail are mail processing costs. Thus, it is clear that each subclass of mail does not use the same mix of the basic functions provided by the Postal Service.

2. Distribution of Institutional Costs

As discussed above, the appropriateness of applying a markup to a single pool of attributable costs can rest upon the implicit assumption that the ratio of institutional costs to the attributable costs for each function is constant across the four functions. A constant ratio of institutional costs to attributable costs would result in an equivalent distribution of institutional costs and attributable costs across the functions. However, as the Commission is well aware, the distribution of institutional costs across the functions is very different from the distribution of attributable costs due to differences in the portion of costs attributed in each of the cost segments.

Exhibit NAA-1A shows the institutional costs associated with providing each function. I determined the institutional costs associated with each function by identifying the institutional costs corresponding to the same cost segments listed above, and then applying an appropriate piggyback factor to these costs.⁶ After identifying the institutional costs specifically associated with each function (hereafter, I refer to these institutional costs as "identifiable" institutional costs), there is still a large pool of institutional costs that cannot be specifically associated with any particular function. I will refer to these institutional costs as "system-wide" institutional costs. These system-wide institutional costs include costs such as postmasters, other supervisors and technicians, headquarters personnel, communications expenses and other miscellaneous supplies and services. These costs are incurred to run the Postal Service and cannot be clearly identified with any particular function.

The distribution of identifiable institutional costs is shown below. The distribution of attributable costs from Table 1 is provided for comparison purposes.

⁶ The derivation of the piggyback factors is described and illustrated in Exhibit NAA-1F. As explained in this exhibit, the piggyback factors for institutional costs equal the equivalent factor for total attributable costs less an adjustment for the imputed rental costs and related building depreciation and interest costs.

Table 3 Distribution of USPS Identifiable Institutional Costs by Function			
Function	Identifiable Institutional Costs	Percent of Total Identifiable Institutional Costs	Percent of Total Attributable Costs
Mail Processing	\$ 5,132,943	28.11%	50.08%
Window Service	1,464,467	8.02%	4.08%
Transportation	556,090	3.05%	11.10%
Delivery	11,107,739	60.83%	28.96%
Other Costs & Adjustments	0	0.00%	5.78%
Total Identifiable Institutional Costs	\$\$18,261,239 .00	100.00%	100.00%

As shown above, although mail processing costs represent over half of the total attributable costs of the Postal Service, this function accounts for only 28 percent of the identifiable institutional costs.⁷ In contrast, the delivery function, which accounts for only 29 percent of the total attributable costs of the system, accounts for over 60 percent of the identifiable institutional costs. Transportation costs represent 11 percent of total attributable costs, but only 3 percent of identifiable institutional costs. And, window service costs represent 4 percent of attributable costs and 8 percent of institutional costs.

3. Illustration of Problems with Current Method of Assigning Institutional Costs

The discrepancies between the different mix of functions used by the various subclasses of mail and the distribution of attributable costs and identifiable institutional costs present a problem when assigning institutional costs by marking up total attributable costs. Mailers that reduce the total attributable costs of a particular subclass by avoiding mail processing and transportation costs through presorting and

⁷ The percentage of institutional costs associated with mail processing will be less if the Postal Rate Commission does not accept the Postal Service's proposed attribution methods for these costs, but instead relies on the previously approved methods of attributing these costs.

dropshipping receive a reduced assignment of *all* institutional costs, not just the institutional costs associated with mail processing and transportation. Thus, mailers can reduce their contribution to the institutional costs associated with delivery by reducing their mail processing and transportation attributable costs.

An example demonstrates the problem. Assume there are three classes of mail—A, B and C—using two postal functions -- 1 and 2. Assume also that Class A uses a mix of both functions, while Class B uses only Function 1 and Class C uses only Function 2.

Assume further that, in this example, the attributable costs are \$150 for Function 1 and \$100 for Function 2 for a total of \$250; and that the institutional costs associated with Function 1 are \$30 and the institutional costs associated with providing Function 2 are \$120 for a total of \$150. Finally, for purposes of illustration, assume that the Commission decides that there is no reason to differentiate among the classes with respect to the factors in Section 3622(b) and therefore, that each subclass should be assigned institutional costs on an "equal" basis. The current method of assigning institutional costs would result in the following institutional costs contributions.

Table 4					
Example: Current Method of Assigning Institutional Costs					
	Attributable Costs			Institutional Costs	
	Function 1	Function 2	Total	Markup	Contribution
Class A	\$75	\$50	\$125	60%	\$75
Class B	\$75	0	\$75	60%	\$45
Class C	0	\$50	\$50	60%	\$30
Total	\$150	\$100	\$250	60%	\$150

As shown in the above table, the current method of assigning institutional costs results in marking up the total attributable costs of each class of mail by 60 percent (total institutional costs of \$150 divided by total attributable costs of \$250). Class B,

1 which uses only Function 1, is assigned \$45 of institutional costs even though the
2 institutional costs for Function 1 total only \$30. Thus, in this example, Class B is
3 assigned a share of the institutional costs of Function 2 although the class makes no
4 use of this function. Class C which makes use of only Function 2 is assigned less
5 institutional cost than Class B, even though the bulk of the institutional costs are related
6 to the provision of Function 2. Thus, this "equal" assignment of the institutional cost
7 burden overburdens Class B, while Class C escapes paying a reasonable share of the
8 institutional costs associated with Function 2.

9 The Commission recognized this problem in Docket No. R90-1.

10 *"...the root of the problem is that when a subclass uses categories of*
11 *attributable costs in an uncommon way -- either by using mostly a function*
12 *whose costs are only very incompletely attributed, or by using mostly a*
13 *function whose costs are completely attributed -- it is not fully (or fairly)*
14 *comparable with other classes."* (*Ibid.*, ¶4051)

15 The Commission can compensate for the problems inherent in the current
16 method of assigning institutional costs by altering the markups to reflect the mix of
17 functions used by the various classes of mail and the proportion of institutional costs
18 incurred to provide each function. To enable the Commission to do so, I have devised
19 a metric that directly gives weight to these factors when assigning institutional costs.

20 IV. UNBUNDLED METHOD PROPOSED IN DOCKET NO. R90-1

21 In Docket No. R90-1, I proposed an alternative method for assigning institutional
22 costs on an unbundled basis. At that time, I proposed that the institutional costs
23 associated with each function be assigned by marking up the attributable costs for that
24 function only. This method explicitly recognized the mix of functions used by each
25 subclass of mail and the portion of institutional costs incurred to provide each of the
26 functions offered by the Postal Service. In its decision, the Commission stated:

1 *"We are certainly always interested in ways which can help us to improve*
2 *the fairness of institutional cost allocations. In particular, we think witness*
3 *Chown has done us a service by focusing directly on the impact of*
4 *unbundling costs, and how worksharing discounts can affect the*
5 *apportionment of institutional costs to categories of mailers."* (Postal Rate
6 *Commission, Opinion and Recommended Decision, Docket No. R90-1,*
7 *January 4, 1991, ¶ 4043.)*

8 The Commission agreed that "...total attributable costs are not a completely
9 accurate measure of how much various subclasses benefit from institutional effort."
10 (*ibid.*, ¶ 4049) While the Commission agreed that there is a problem, the Commission
11 chose not to apply my proposed method at that time.

12 The method proposed in Docket No. R90-1 involved the application of the
13 statutory factors separately to each of the functions offered by the Postal Service to
14 determine the appropriate markup for each function for each subclass. Using the
15 example discussed above, the markup for each function would be determined and
16 applied to the attributable costs for that function, as shown in the following table.
17 Again, in this example, I assume that the Commission has determined that "equal"
18 markups for each of the subclasses are appropriate.

<p style="text-align: center;">Table 5 Example: Unbundled Method of Assigning Institutional Costs</p>							
	Function 1			Function 2			Total
	Attributable	Markup	Institutional	Attributable	Markup	Institutional	Contribution
Class A	\$75	20%	\$15	\$50	120%	\$60	\$75
Class B	\$75	20%	\$15	0	120%	0	\$15
Class C	0	20%	0	\$50	120%	\$60	\$60
Total	\$150	20%	\$30	\$100	120%	\$120	\$150

19 In the above example, Function 1 bears a markup of 20% (\$30 of institutional
20 costs divided by \$150 of attributable costs). Since Function 1 is used in equal
21 proportions by Class A and Class B, the institutional costs are divided equally between

1 these two classes of mail. Function 2 bears a markup of 120% (\$120 of institutional
2 costs divided by \$100 of attributable costs). And, again the two classes using this
3 function bear the institutional costs of the function.

4 As shown in this table, the "unbundling" of the institutional cost assignment
5 results in a lower contribution for Class B since this class does not use any of Function
6 2 and since Function 2 accounts for 80 percent of the institutional costs. In contrast,
7 the contribution of Class C rises since this class uses only Function 2.

8 As noted in Docket No. R90-1, the "unbundling" of the institutional cost
9 assignment would have allowed the Commission to explicitly account for the different
10 mix of functions used by each subclass and the different amounts of institutional costs
11 incurred to provide the various functions. In this proceeding, I have focused on deriving
12 a better measure of total attributable costs for assigning institutional costs which
13 explicitly accounts for the different mix of functions used by each subclass of mail and
14 the different amounts of institutional costs incurred to provide these functions. In this
15 way, the Commission could apply their judgment to a single cost figure for each
16 subclass. As described below, a better metric for institutional cost assignment can be
17 derived by weighting the attributable costs associated with each function.

18 V. A BETTER METRIC -- WEIGHTED ATTRIBUTABLE COSTS

19 Using the traditional measure of total attributable costs, \$1 of mail processing
20 costs receives the same weight as \$1 of delivery costs when assigning institutional
21 costs. However, as shown above mail processing costs account for 50 percent of the
22 attributable costs and only 28 percent of the institutional costs. In contrast, delivery
23 costs account for 29 percent of the attributable costs and 61 percent of the institutional
24 costs. Therefore, using total attributable costs as the metric for assigning institutional
25 costs can result in a large share of the institutional costs of delivery being assigned to

1 subclasses with large amounts of mail processing costs. In contrast, subclasses which
2 use mostly the delivery function can receive a lower institutional cost assignment, even
3 though a large share of institutional costs are incurred to provide the delivery function.

4 When assigning institutional costs to subclasses, I propose that the attributable
5 costs of each function be weighted by a factor equal to the percentage of total
6 institutional costs divided by the percentage of attributable costs for that function. In
7 this way, the attributable costs for those functions that have a large portion of
8 institutional costs relative to attributable costs will be given greater weight when
9 assigning institutional costs. The attributable costs for those functions with a large
10 percentage of attributable costs but few institutional costs will be given far less weight
11 when assigning institutional costs.

12 Let us return to our example. In this example, Function 1 accounted for 60
13 percent of total attributable costs and Function 2 accounted for the remaining 40
14 percent of total attributable costs. However, Function 1 accounted for only 20 percent
15 of the institutional costs; while Function 2 accounted for the remaining 80 percent of the
16 institutional costs. Thus, the weights for these two functions are derived, as follows:

Table 6			
Example: Derivation of Weights			
	Function 1	Function 2	Total
Attributable Costs	\$150	\$100	\$250
Percentage of Attributable Costs	60%	40%	100%
Institutional Costs	\$30	\$120	\$150
Percentage of Institutional Costs	20%	80%	100%
Weighting Factor	0.333	2.000	

- 1 Applying these weighting factors to the attributable costs of each function for
2 each subclass results in the following "weighted attributable costs."

Table 7						
Example: Derivation of Weighted Attributable Costs						
	Function 1		Function 2		Total Attributable Costs	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Class A	\$75	\$25	\$50	\$100	\$125	\$125
Class B	\$75	\$25	0	0	\$75	\$25
Class C	0	0	\$50	\$100	\$50	\$100
Total	\$150	\$50	\$100	\$200	\$250	\$250

- 3 In this example, the attributable costs of Function 1 are multiplied by the
4 weighting factor of 0.333 (20% institutional costs divided by 60% attributable costs) and
5 the attributable costs of Function 2 are multiplied by the weighting factor of 2.000 (80%
6 institutional costs divided by 40% attributable costs). By so doing, greater weight is
7 given to the attributable costs of the function that causes the bulk of the institutional
8 costs to be incurred. Thus, the attributable costs of Function 2 are given greater weight
9 since this function accounts for the majority of the institutional costs. Less weight is
10 given to the attributable costs of Function 1 which has low institutional costs and a high
11 percentage of attributable costs.

1 Note that, as a result, the weighted attributable costs of Class C are greater than
2 the unweighted costs for this class of mail. This weighting recognizes that Class C
3 uses Function 2 only -- the function that accounts for the majority of the institutional
4 costs -- and therefore, should bear a greater share of the institutional costs when
5 compared to Class B which uses Function 1 only.

6 If these weighted attributable costs are used to assign institutional costs to
7 subclasses, the following institutional cost assignments will result. (Assuming once
8 again that the Commission has determined that equal markups are appropriate for
9 these classes of mail.)⁸

Table 8 Example: Institutional Cost Assignment using Weighted Attributable Costs			
	Weighted Attributable Costs	Markup	Institutional Cost Contribution
Class A	\$125	60%	\$75
Class B	\$25	60%	\$15
Class C	\$100	60%	\$60
Total	\$250	60%	\$150

10 In the above table, the institutional cost contribution is reduced for Class B and
11 increased for Class C relative to the assignments that result using unweighted
12 attributable costs (Table 4). The use of the weighted attributable costs to assign
13 institutional costs explicitly accounts for the fact that Class C is using a function with a
14 large portion of institutional costs, while Class B is using a function with much lower
15 institutional costs. The assignment of institutional costs to Class A is unchanged in this
16 example.

⁸ The method applies equally well where markups are not uniform. For example, see my discussion in Section VI where I apply the method using the Postal Service's proposed institutional cost contributions.

1 When computing the revenues to be recovered from each class of mail, each
2 class of mail would be assigned its actual attributable costs (unweighted) as required
3 under the Act and the institutional costs as derived above. The total revenue to be
4 recovered from each class of mail is shown below.

Table 9			
Example: Total Revenues by Class			
	Attributable Costs	Institutional Costs	Total Revenues
Class A	\$125	\$75	\$200
Class B	\$75	\$15	\$90
Class C	\$50	\$60	\$110
Total	\$250	\$150	\$400

5 This method provides a metric -- weighted attributable costs -- to which the
6 Commission can apply markups based upon its assessment of the factors under
7 Section 3622(b) of the Postal Reorganization Act. Thus, this method of assigning
8 institutional costs does not replace the essential role of judgment with any mechanistic
9 method. Instead, this method provides a better cost figure to which the Commission
10 can apply its judgment.

11 In this testimony, I am not proposing a specific assignment of the institutional
12 costs of the Postal Service. Instead, I am simply trying to provide a metric with which
13 the Postal Rate Commission can gauge the reasonableness of any proposed
14 institutional cost contributions. This section has provided an example of an assignment
15 of institutional costs based upon my proposed metric. In the next section of my
16 testimony, I derive the weighting factors for the four main functions provided by the
17 Postal Service and compute the weighted attributable costs for each of the subclasses.
18 I then illustrate the implied "weighted attributable cost" markups that result from the
19 Postal Service's proposed institutional cost contributions.

VI. THE POSTAL SERVICE'S WEIGHTED ATTRIBUTABLE COSTS

In this section of my testimony, I apply my proposed method to the Postal Service's cost data for the different functions provided. As discussed above, Exhibit NAA-1A and Exhibit NAA-1B present the attributable costs for the four main functions provided by the Postal Service -- mail processing, window service, transportation and delivery -- for each subclass. Exhibit NAA-1C derives the weighting factors as described in Section V above. These weighting factors are the percentage of identifiable institutional costs divided by the percentage of attributable costs associated with providing each function.

As shown Exhibit NAA-1C, mail processing costs receive a weight of 0.5613. This factor reflects the fact that the institutional costs associated with mail processing are a much smaller percentage than the attributable costs associated with providing this function. In contrast, the delivery function receives a weighting factor of 2.1003. This higher weight recognizes the fact that over half of the costs of providing the delivery function are institutional costs. Window service and transportation receive weights of 1.9649 and 0.2744, respectively.

Applying these weights to the Postal Service's attributable costs in Exhibit NAA-1B results in the weighted attributable costs shown in Exhibit NAA-1D. Exhibit NAA-1E compares the Postal Service's institutional cost contributions at proposed rates to the weighted attributable costs to derive the weighted markups in the Postal Service's proposal. As this exhibit shows, the system-wide markup is 78.67%. The weighted markup for First-Class letter mail is 102.15%. Standard A Commercial ECR mail has a weighted markup of 77.75%, a markup approximately equal to the system-wide markup.

In my view, markups based upon the weighted attributable costs give a more accurate and appropriate indication of the actual institutional cost burden imposed upon each subclass. The Postal Service's measure of markup based upon unweighted

1 attributable costs results in a markup of 128.30% for Standard A ECR mail. However,
2 this markup is misleading in that it fails to account for the relative mix of the postal
3 functions used by ECR mail. In particular, the Postal Service's markup does not reflect
4 the fact that Standard A ECR mailers depend primarily on the delivery function -- a
5 function which accounts for the majority of the institutional costs of the Postal Service.

6 VII. CONCLUSION

7 In this testimony, I am proposing an alternative to the use of total attributable
8 costs for the assignment of institutional costs. In its Docket No. R90-1 decision, the
9 Commission noted that "total attributable costs are not a completely accurate measure
10 of how much various subclasses benefit from institutional effort." (¶4049) I am
11 proposing that the Commission use a new metric for assigning institutional costs to
12 subclasses of mail -- weighted attributable costs. By weighting the attributable costs of
13 each of the functions offered by the Postal Service, this measure of attributable costs
14 more accurately reflects how each subclass benefits from institutional effort. My
15 proposal is simply to substitute this measure of weighted attributable costs for total
16 attributable costs when assigning institutional costs. The Commission could then apply
17 its judgmental assessment of the factors under Section 3622(b) of the Act to derive the
18 appropriate markup for each subclass of mail.

19 In this direct testimony, my analysis is aimed simply at providing a better "ruler"
20 for measuring the appropriate assignment of institutional costs. I make no judgments
21 regarding the relative level of the institutional costs contribution to be recovered from
22 each of the subclasses.

ATTRIBUTABLE COSTS BY FUNCTION

After Rates, Totals Include Contingency Fee

Line No.	Description	Mail Processing Costs		Piggyback Factor	Mail Processing Total
		CS 3.1	CS 4		
First-Class Mail					
1	Single-Piece Letters	4,899,112	2,645	1.56702	7,757,963
2	Worksharing Letters	1,221,871	631	1.60350	1,979,885
3	Total Letters	6,120,983	3,276		9,737,848
4	Single-Piece Cards	137,636	77	1.53045	212,870
5	Worksharing Postcards	49,979	26	1.53597	77,574
6	Total Cards	187,615	103		290,445
7	Total First-Class Mail	6,308,598	3,379		10,028,292
8	Priority Mail	534,646	137	1.55900	842,064
9	Express Mail	96,575	0	1.55108	151,294
10	Mailgrams	95	0	1.28619	123
Periodicals					
11	In-County	15,977	3	1.47714	23,841
12	Outside County				0
13	Nonprofit	82,589	16	1.52572	127,292
14	Classroom	4,765	1	1.52048	7,319
15	Regular Rate	493,023	97	1.51853	756,306
16	Total Periodicals	596,354	117		914,758
Standard A Mail					
17	Single Piece	87,560	23	1.58271	0
18	Commercial Regular	1,900,197	495	1.56284	3,000,182
19	Commercial ECR	270,838	66	1.56331	427,742
20	Total Commercial	2,258,595	584		3,427,924
21	Nonprofit	404,828	107	1.55015	633,987
22	Nonprofit ECR	26,167	6	1.58836	41,988
23	Total Nonprofit	430,995	113		675,975
24	Total Standard A Mail	2,689,590	697		4,103,899
Standard B Mail					
25	Parcel Post	157,448		1.73911	276,558
26	Bound Printed Matter	80,829		1.69684	138,525
27	Special Rate	72,355		1.75785	128,461
28	Library Rate	15,581		1.70038	26,759
29	Total Standard B Mail	326,213			570,303
30	USPS Penalty Mail	80,180		1.49609	0
31	Free-for-the-Blind, etc.	12,075		1.62782	19,852
32	International Mail	212,491		1.55626	333,998
33	TOTAL ALL MAIL	10,856,817	4,330		16,964,584
34	Special Services	119,150	98	1.82894	220,278
35	TOTAL ATTRIBUTABLE COSTS	10,975,967	4,428	1.56505	17,184,862
36	INSTITUTIONAL COSTS	3,319,599	5,651	1.52834	5,132,943

1.0% Contingency Fee included in totals for each service.

ATTRIBUTABLE COSTS BY FUNCTION

After Rates, Totals Include Contingency Fee

Line No.	Description	Window Service CS 3.2	Piggyback Factor	Window Service Total	Transportation Costs CS 14
First-Class Mail					
1	Single-Piece Letters	525,379	1.41856	752,734	625,377
2	Worksharing Letters	24,113	1.41858	34,548	274,740
3	Total Letters	549,492		787,283	900,117
4	Single-Piece Cards	33,661	1.41856	48,228	9,292
5	Worksharing Postcards	1,016	1.41920	1,456	3,070
6	Total Cards	34,677		49,684	12,362
7	Total First-Class Mail	584,169		836,967	912,479
8	Priority Mail	51,186	1.41856	73,337	801,977
9	Express Mail	27,063	1.41856	38,774	68,466
10	Mailgrams	0	1.41854	0	0
Periodicals					
11	In-County	502	1.42406	722	66
12	Outside County				
13	Nonprofit	245	1.41129	349	64,043
14	Classroom	0	0.00000	0	1,993
15	Regular Rate	2,389	1.41784	3,421	279,349
16	Total Periodicals	3,136		4,492	345,450
Standard A Mail					
17	Single Piece	2,828	1.41902	0	0
18	Commercial Regular	29,333	1.41860	42,028	317,864
19	Commercial ECR	5,956	1.41834	8,532	61,321
20	Total Commercial	38,117		50,560	379,185
21	Nonprofit	9,685	1.41852	13,876	60,529
22	Nonprofit ECR	878	1.42001	1,259	7,160
23	Total Nonprofit	10,563		15,135	67,689
24	Total Standard A Mail	48,680		65,695	446,875
Standard B Mail					
25	Parcel Post	6,623	1.44380	9,658	327,576
26	Bound Printed Matter	720	1.42112	1,033	64,762
27	Special Rate	3,592	1.41863	5,147	60,023
28	Library Rate	101	1.38679	141	13,062
29	Total Standard B Mail	11,036		15,979	465,424
30	USPS Penalty Mail	12,599	1.41851	0	0
31	Free-for-the-Blind, etc.	216	1.41935	310	4,242
32	International Mail	24,292	1.41854	34,804	763,912
33	TOTAL ALL MAIL	762,377		1,070,358	3,808,826
34	Special Services	230,461	1.41855	330,190	0
35	TOTAL ATTRIBUTABLE COSTS	992,838		1,400,548	3,808,826
36	INSTITUTIONAL COSTS	1,058,584	1.36972	1,464,467	556,090

1.0% Contingency Fee included in
totals for each service.

ATTRIBUTABLE COSTS BY FUNCTION

After Rates, Totals Include Contingency Fee

Line No.	Description	City Delivery CS 6&7	Delivery Costs Piggyback Factor	Vehical Service Drivers CS 8	VS Drivers Piggyback Factor
First-Class Mail					
1	Single-Piece Letters	1,795,578	1.31157	30,419	1.57417
2	Worksharing Letters	898,440	1.32005	20,191	1.56117
3	Total Letters	2,694,018		50,610	
4	Single-Piece Cards	83,050	1.31694	242	1.55307
5	Worksharing Postcards	39,830	1.31804	241	1.50568
6	Total Cards	122,880		483	
7	Total First-Class Mail	2,816,898		51,093	
8	Priority Mail	130,873	1.37890	24,852	1.53564
9	Express Mail	24,571	1.41823	1,718	1.55041
10	Mailgrams	194	1.41733	1	1.00000
Periodicals					
11	In-County	25,037	1.30917	2,484	1.56783
12	Outside County				
13	Nonprofit	60,610	1.30919	6,167	1.57706
14	Classroom	1,554	1.30626	245	1.60828
15	Regular Rate	238,117	1.30669	32,339	1.56908
16	Total Periodicals	325,318		41,235	
Standard A Mail					
17	Single Piece	30,102	1.32621	498	1.54661
18	Commercial Regular	987,764	1.30701	49,525	1.54612
19	Commercial ECR	735,413	1.30485	39,615	1.55147
20	Total Commercial	1,753,279		89,638	
21	Nonprofit	207,195	1.30679	7,568	1.55569
22	Nonprofit ECR	43,267	1.30368	1,800	1.55785
23	Total Nonprofit	250,462		9,368	
24	Total Standard A Mail	2,003,741		99,006	
Standard B Mail					
25	Parcel Post	49,296	1.36570	29,452	1.54678
26	Bound Printed Matter	58,315	1.40517	15,584	1.55389
27	Special Rate	30,730	1.37620	5,520	1.56238
28	Library Rate	4,593	1.38838	625	1.57491
29	Total Standard B Mail	142,934		51,181	
30	USPS Penalty Mail	11,697	1.30397	994	1.62076
31	Free-for-the-Blind, etc.	3,837	1.29955	620	1.54646
32	International Mail	23,119	1.35378	5,606	1.58193
33	TOTAL ALL MAIL	5,483,182		276,306	
34	Special Services	126,759	1.29571	0	
35	TOTAL ATTRIBUTABLE COSTS	5,609,941		276,306	
36	INSTITUTIONAL COSTS	6,350,591	1.29616	172,666	1.54511

1.0% Contingency Fee included in totals for each service.

ATTRIBUTABLE COSTS BY FUNCTION

After Rates, Totals Include Contingency Fee

Line No.	Description	Special Delivery CS 9	Spec. Del. Piggyback Factor	Rural Carriers CS 10	Rural Carrier Piggyback Factor	Total Delivery Costs
First-Class Mail						
1	Single-Piece Letters	729	1.49657	308,636	1.19701	2,801,177
2	Worksharing Letters	346	1.48285	286,874	1.19693	1,577,002
3	Total Letters	1,075		595,510		4,378,179
4	Single-Piece Cards	39	1.45000	19,991	1.19702	135,071
5	Worksharing Postcards	22	1.31818	14,421	1.19661	70,847
6	Total Cards	61		34,412		205,918
7	Total First-Class Mail	1,136		629,922		4,584,097
8	Priority Mail	1,164	1.49376	15,607	1.19650	241,427
9	Express Mail	50,446	1.49538	5,397	1.19693	120,601
10	Mailgrams	53	1.43396	13	1.07692	370
Periodicals						
11	In-County	3	1.00000	14,487	1.19696	54,556
12	Outside County					0
13	Nonprofit	5	1.20000	34,714	1.19697	131,940
14	Classroom	0	0.00000	763	1.19805	3,371
15	Regular Rate	23	1.39130	114,811	1.19696	504,337
16	Total Periodicals	31		164,775		694,204
Standard A Mail						
17	Single Piece	8	1.50000	1,320	1.19660	0
18	Commercial Regular	8	1.28571	393,561	1.19684	1,857,015
19	Commercial ECR	5	1.20000	264,433	1.19686	1,350,936
20	Total Commercial	21		659,314		3,207,951
21	Nonprofit	3	1.00000	82,285	1.19691	384,835
22	Nonprofit ECR	3	1.00000	12,670	1.19672	75,120
23	Total Nonprofit	6		94,955		459,954
24	Total Standard A Mail	27		754,269		3,667,906
Standard B Mail						
25	Parcel Post	44	1.38297	11,068	1.19684	127,449
26	Bound Printed Matter	3	1.00000	11,706	1.19687	121,374
27	Special Rate	3	1.00000	5,691	1.19676	58,306
28	Library Rate	3	1.00000	1,228	1.19783	8,923
29	Total Standard B Mail	53		29,693		316,052
30	USPS Penalty Mail	1	1.00000	1,317	1.19741	0
31	Free-for-the-Blind, etc.	0	0.00000	786	1.19592	6,954
32	International Mail	8,071	1.49531	2,560	1.19639	55,851
33	TOTAL ALL MAIL	60,982		1,604,339		9,687,461
34	Special Services	60	1.44615	70,136	1.19682	250,753
35	TOTAL ATTRIBUTABLE COSTS	61,042		1,674,475		9,938,214
36	INSTITUTIONAL COSTS	53,072	1.47535	2,047,129	1.18276	11,107,739

1.0% Contingency Fee included in totals for each service.

ATTRIBUTABLE COSTS BY FUNCTION

After Rates, Totals Include Contingency Fee

Line No.	Description	Other Costs & Adjustments	Total Attributable
	First-Class Mail		
1	Single-Piece Letters	821,413	12,758,664
2	Worksharing Letters	180,908	4,047,084
3	Total Letters	1,002,322	16,805,748
4	Single-Piece Cards	26,800	432,261
5	Worksharing Postcards	7,175	160,123
6	Total Cards	33,974	592,384
7	Total First-Class Mail	1,036,296	17,398,132
8	Priority Mail	307,412	2,266,217
9	Express Mail	31,429	410,564
10	Mailgrams	15	508
	Periodicals		
11	In-County	2,176	81,360
12	Outside County	0	
13	Nonprofit	7,847	331,471
14	Classroom	72	12,755
15	Regular Rate	34,476	1,577,889
16	Total Periodicals	44,570	2,003,475
	Standard A Mail		
17	Single Piece	-298	-298
18	Commercial Regular	-25,415	5,191,674
19	Commercial ECR	36,717	1,885,248
20	Total Commercial	11,003	7,076,624
21	Nonprofit	13,878	1,107,105
22	Nonprofit ECR	-406	125,121
23	Total Nonprofit	13,472	1,232,226
24	Total Standard A Mail	24,476	8,308,850
	Standard B Mail		
25	Parcel Post	12,087	753,327
26	Bound Printed Matter	20,318	346,013
27	Special Rate	4,923	256,860
28	Library Rate	199	49,085
29	Total Standard B Mail	37,527	1,405,285
30	USPS Penalty Mail	0	0
31	Free-for-the-Blind, etc.	399	31,757
32	International Mail	17,465	1,206,030
33	TOTAL ALL MAIL	1,499,589	33,030,818
34	Special Services	483,633	1,284,854
35	TOTAL ATTRIBUTABLE COSTS	1,983,222	34,315,672
36	INSTITUTIONAL COSTS	0	26,997,063

1.0% Contingency Fee included in
totals for each service.

Exhibit NAA-1B

ATTRIBUTABLE COSTS BY FUNCTION AND SUBCLASS

(Test Year After Rates)

Page 1 of 2

Line No.	Description	Mail Processing	Window Service	Transportation Costs	Delivery Costs	Other Costs Adjustment	Total Attributable Costs
First-Class Mail							
1	Single-Piece Letters	7,757,963	752,734	625,377	2,801,177	821,413	12,758,664
2	Worksharing Letters	1,979,885	34,548	274,740	1,577,002	180,908	4,047,084
3	Total Letters	9,737,848	787,283	900,117	4,378,179	1,002,322	16,805,748
4	Single-Piece Cards	212,870	48,228	9,292	135,071	26,800	432,261
5	Worksharing Postcards	77,574	1,456	3,070	70,847	7,175	160,123
6	Total Cards	290,445	49,684	12,362	205,918	33,974	592,384
7	Total First-Class Mail	10,028,292	836,967	912,479	4,584,097	1,036,296	17,398,132
8	Priority Mail	842,064	73,337	801,977	241,427	307,412	2,266,217
9	Express Mail	151,294	38,774	68,466	120,601	31,429	410,564
10	Mailgrams	123	0	0	370	15	508
Periodicals							
11	In-County	23,841	722	66	54,556	2,176	81,360
12	Outside County	0			0	0	0
13	Nonprofit	127,292	349	64,043	131,940	7,847	331,471
14	Classroom	7,319	0	1,993	3,371	72	12,755
15	Regular Rate	756,306	3,421	279,349	504,337	34,476	1,577,889
16	Total Periodicals	914,758	4,492	345,450	694,204	44,570	2,003,475
Standard A Mail							
17	Single Piece	0	0	0	0	-298	-298
18	Commercial Regular	3,000,182	42,028	317,864	1,857,015	-25,415	5,191,674
19	Commercial ECR	427,742	8,532	61,321	1,350,936	36,717	1,885,248
20	Total Commercial	3,427,924	50,560	379,185	3,207,951	11,003	7,076,624
21	Nonprofit	633,987	13,876	60,529	384,835	13,878	1,107,105
22	Nonprofit ECR	41,988	1,259	7,160	75,120	-406	125,121
23	Total Nonprofit	675,975	15,135	67,689	459,954	13,472	1,232,226
24	Total Standard A Mail	4,103,899	65,695	446,875	3,667,906	24,476	8,308,850
Standard B Mail							
25	Parcel Post	276,558	9,658	327,576	127,449	12,087	753,327
26	Bound Printed Matter	138,525	1,033	64,762	121,374	20,318	346,013
27	Special Rate	128,461	5,147	60,023	58,306	4,923	256,860
28	Library Rate	26,759	141	13,062	8,923	199	49,085
29	Total Standard B Mail	570,303	15,979	465,424	316,052	37,527	1,405,285
30	Free-for-the-Blind, etc.	19,852	310	4,242	6,954	399	31,757
31	International Mail	333,998	34,804	763,912	55,851	17,465	1,206,030
32	TOTAL ALL MAIL	16,964,584	1,070,358	3,808,826	9,687,461	1,499,589	33,030,818
33	Special Services	220,278	330,190	0	250,753	483,633	1,284,854
34	TOTAL ATTRIBUTABLE COSTS	17,184,862	1,400,548	3,808,826	9,938,214	1,983,222	34,315,672

Exhibit NAA-1B
ATTRIBUTABLE COSTS BY FUNCTION AND SUBCLASS

(Test Year After Rates)

Page 2 of 2

Line No.	Description	Mail Processing	Window Service	Transportation Costs	Delivery Costs	Other Costs Adjustment	Total Attributable Costs
First-Class Mail							
1	Single-Piece Letters	60.81%	5.90%	4.90%	21.96%	6.44%	100.00%
2	Worksharing Letters	48.92%	0.85%	6.79%	38.97%	4.47%	100.00%
3	Total Letters	57.94%	4.68%	5.36%	26.05%	5.96%	100.00%
4	Single-Piece Cards	49.25%	11.16%	2.15%	31.25%	6.20%	100.00%
5	Worksharing Postcards	48.45%	0.91%	1.92%	44.25%	4.48%	100.00%
6	Total Cards	49.03%	8.39%	2.09%	34.76%	5.74%	100.00%
7	Total First-Class Mail	57.64%	4.81%	5.24%	26.35%	5.96%	100.00%
8	Priority Mail	37.16%	3.24%	35.39%	10.65%	13.56%	100.00%
9	Express Mail	36.85%	9.44%	16.68%	29.37%	7.66%	100.00%
10	Mailgrams	24.29%	0.00%	0.00%	72.76%	2.95%	100.00%
Periodicals							
11	In-County	29.30%	0.89%	0.08%	67.05%	2.67%	100.00%
12	Outside County						
13	Nonprofit	38.40%	0.11%	19.32%	39.80%	2.37%	100.00%
14	Classroom	57.38%	0.00%	15.62%	26.43%	0.56%	100.00%
15	Regular Rate	47.93%	0.22%	17.70%	31.96%	2.18%	100.00%
16	Total Periodicals	45.66%	0.22%	17.24%	34.65%	2.22%	100.00%
Standard A Mail							
17	Single Piece	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
18	Commercial Regular	57.79%	0.81%	6.12%	35.77%	-0.49%	100.00%
19	Commercial ECR	22.69%	0.45%	3.25%	71.66%	1.95%	100.00%
20	Total Commercial	48.44%	0.71%	5.36%	45.33%	0.16%	100.00%
21	Nonprofit	57.27%	1.25%	5.47%	34.76%	1.25%	100.00%
22	Nonprofit ECR	33.56%	1.01%	5.72%	60.04%	-0.32%	100.00%
23	Total Nonprofit	54.86%	1.23%	5.49%	37.33%	1.09%	100.00%
24	Total Standard A Mail	49.39%	0.79%	5.38%	44.14%	0.29%	100.00%
Standard B Mail							
25	Parcel Post	36.71%	1.28%	43.48%	16.92%	1.60%	100.00%
26	Bound Printed Matter	40.03%	0.30%	18.72%	35.08%	5.87%	100.00%
27	Special Rate	50.01%	2.00%	23.37%	22.70%	1.92%	100.00%
28	Library Rate	54.51%	0.29%	26.61%	18.18%	0.41%	100.00%
29	Total Standard B Mail	40.58%	1.14%	33.12%	22.49%	2.67%	100.00%
30	Free-for-the-Blind, etc.	62.51%	0.98%	13.36%	21.90%	1.26%	100.00%
31	International Mail	27.69%	2.89%	63.34%	4.63%	1.45%	100.00%
32	TOTAL ALL MAIL	51.36%	3.24%	11.53%	29.33%	4.54%	100.00%
33	Special Services	17.14%	25.70%	0.00%	19.52%	37.64%	100.00%
34	TOTAL ATTRIBUTABLE COSTS	50.08%	4.08%	11.10%	28.96%	5.78%	100.00%

Exhibit NAA-1C
DERIVATION OF WEIGHTING FACTORS

Line No.		Mail Processing	Window Service	Transportation	Delivery	Other	Total
1	Total Attributable Costs	17,184,862	1,400,548	3,808,826	9,938,214	1,983,222	34,315,672
2	Percent of Total Attributable	50.08%	4.08%	11.10%	28.96%	5.78%	100.00%
3	Total Institutional Costs	5,132,943	1,464,467	556,090	11,107,739	0	18,261,239
4	Percent of Total Institutional	28.11%	8.02%	3.05%	60.83%	0.00%	100.00%
5	% Institutional/% Attributable	56.13%	196.49%	27.44%	210.03%	0.00%	

Line 1: Exhibit NAA-1B, page 1, line 34.

Line 2: Attributable Costs for each function in Line 1 divided by Total Attributable Cost.

Line 3: Exhibit NAA-1A, line 36.

Line 4: Institutional Costs for each function in Line 3 divided by Total Institutional Costs for these four function.

Line 5: Line 4 divided by Line 2.

Exhibit NAA-1D
WEIGHTED ATTRIBUTABLE COSTS BY FUNCTION AND SUBCLASS
(Test Year After Rates)

Line No.	Description	Mail Processing	Window Service	Transportation Costs	Delivery Costs	Other Costs	Total Attributable Costs
1	First-Class Mail						
2	Single-Piece Letters	4,354,420	1,479,060	171,577	5,883,288	0	11,888,345
3	Worksharing Letters	1,111,278	67,884	75,377	3,312,165	0	4,566,704
4	Total Letters	5,465,698	1,546,945	246,953	9,195,453	0	16,455,049
5	Single-Piece Cards	119,481	94,763	2,549	283,689	0	500,482
6	Worksharing Postcards	43,541	2,862	842	148,800	0	196,045
7	Total Cards	163,022	97,625	3,392	432,489	0	696,527
8	Total First-Class Mail	5,628,720	1,644,570	250,345	9,627,941	0	17,151,576
9	Priority Mail	472,637	144,100	220,028	507,068	0	1,343,833
10	Express Mail	84,919	76,188	18,784	253,297	0	433,188
11	Mailgrams	69	0	0	776	0	846
12	Periodicals						
13	In-County	13,381	1,419	18	114,583	0	129,401
14	Outside County						
15	Nonprofit	71,447	686	17,571	277,112	0	366,816
16	Classroom	4,108	0	547	7,081	0	11,736
17	Regular Rate	424,502	6,722	76,641	1,059,255	0	1,567,121
18	Total Periodicals	513,439	8,827	94,777	1,458,031	0	2,075,074
19	Standard A Mail						
20	Single Piece	0	0	0	0	0	0
21	Commercial Regular	1,683,954	82,581	87,208	3,900,273	0	5,754,017
22	Commercial ECR	240,085	16,765	16,824	2,837,360	0	3,111,033
23	Total Commercial	1,924,039	99,346	104,032	6,737,633	0	8,865,050
24	Nonprofit	355,847	27,265	16,607	808,265	0	1,207,983
25	Nonprofit ECR	23,567	2,474	1,964	157,773	0	185,779
26	Total Nonprofit	379,414	29,739	18,571	966,038	0	1,393,762
27	Total Standard A Mail	2,303,453	129,085	122,603	7,703,671	0	10,258,813
28	Standard B Mail						
29	Parcel Post	155,227	18,977	89,873	267,679	0	531,757
30	Bound Printed Matter	77,752	2,031	17,768	254,920	0	352,471
31	Special Rate	72,103	10,113	16,468	122,460	0	221,143
32	Library Rate	15,019	278	3,584	18,742	0	37,623
33	Total Standard B Mail	320,102	31,398	127,692	663,801	0	1,142,993
34	Free-for-the-Blind, etc.	11,143	608	1,164	14,605	0	27,521
35	International Mail	187,468	68,386	209,585	117,303	0	582,742
36	TOTAL ALL MAIL	9,521,949	2,103,164	1,044,978	20,346,494	0	33,016,585
37	Special Services	123,639	648,795	0	526,653	0	1,299,087
38	TOTAL ATTRIBUTABLE COSTS	9,645,588	2,751,959	1,044,978	20,873,147	0	34,315,672
39	WEIGHTING FACTORS	56.13%	196.49%	27.44%	210.03%	0.00%	

Exhibit NAA-1E
USPS MARKUPS BASED UPON WEIGHTED ATTRIBUTABLE COSTS
 (Test Year After Rates)

Line No.	Description	USPS Contribution at Proposed Rates	Weighted Attributable Costs	Weighted Markup
	First-Class Mail			
1	Single-Piece Letters	9,390,095	11,888,345	78.99%
2	Worksharing Letters	7,418,926	4,566,704	162.46%
3	Total Letters	16,809,021	16,455,049	102.15%
4	Single-Piece Cards	228,751	500,482	45.71%
5	Worksharing Postcards	267,843	196,045	136.62%
6	Total Cards	496,594	696,527	71.30%
7	Total First-Class Mail	17,305,615	17,151,576	100.90%
8	Priority Mail	2,086,476	1,343,833	155.26%
9	Express Mail	430,652	433,188	99.41%
10	Mailgrams	4,168	846	492.92%
	Periodicals			
11	In-County	2,305	129,401	1.78%
12	Outside County			
13	Nonprofit	11,160	366,816	3.04%
14	Classroom	-2,215	11,736	-18.87%
15	Regular Rate	111,057	1,567,121	7.09%
16	Total Periodicals	122,307	2,075,074	5.89%
	Standard A Mail			
17	Single Piece	298	0	
18	Commercial Regular	2,830,371	5,754,017	49.19%
19	Commercial ECR	2,418,756	3,111,033	77.75%
20	Total Commercial	5,249,425	8,865,050	59.21%
21	Nonprofit	244,328	1,207,983	20.23%
22	Nonprofit ECR	76,287	185,779	41.06%
23	Total Nonprofit	320,615	1,393,762	23.00%
24	Total Standard A Mail	5,570,040	10,258,813	54.30%
	Standard B Mail			
25	Parcel Post	29,589	531,757	5.56%
26	Bound Printed Matter	178,595	352,471	50.67%
27	Special Rate	95,470	221,143	43.17%
28	Library Rate	3,342	37,623	8.88%
29	Total Standard B Mail	306,996	1,142,993	26.86%
30	Free-for-the-Blind, etc.	-31,757	27,521	-115.39%
31	International Mail	437,814	582,742	75.13%
32	TOTAL ALL MAIL	26,232,311	33,016,585	79.45%
33	Special Services	764,752	1,299,087	58.87%
34	TOTAL	26,997,063	34,315,672	78.67%

Exhibit NAA-1F
DERIVATION OF PIGGYBACK FACTORS FOR
INSTITUTIONAL COSTS BY COST COMPONENT*

Line No.		Mail Processing	Window Service	City Delivery Carriers	Vehicle Service Drivers	Special Delivery Messengers	Rural Carriers
1	Direct Labor	10,910,433	1,008,886	5,639,362	280,125	62,011	1,683,448
2	Total Estimated Attr. Costs	17,169,421	1,431,357	7,414,004	435,876	92,719	2,014,932
3	Piggyback Factor	1.57367	1.41875	1.31469	1.55601	1.49520	1.19691
4	Total Estimated Attr. Costs	17,169,421	1,431,357	7,414,004	435,876	92,719	2,014,932
5	Less: Imputed Rents	246,796	24,683	52,130	1,524	614	11,885
6	Bldg. Depreciation	208,505	20,854	44,043	1,287	519	10,042
7	Bldg. Interest	39,239	3,925	8,289	242	98	1,890
8	Adjusted Attributable Costs	16,674,881	1,381,895	7,309,542	432,823	91,488	1,991,115
9	Piggyback Factor for Institutional Costs	1.52834	1.36972	1.29616	1.54511	1.47535	1.18276

Source: Direct Labor and all Attributable Cost figures on Lines 1, 2, 4-7 from Library Reference H-77.

Line 3 = Line 2 divided by Line 1

Line 8 = Line 4 less Lines 5-7

Line 9 = Line 8 divided by Line 1

* The piggyback factor for institutional costs in each cost segment equals the corresponding piggyback factor for the total attributable costs in the cost segment, except for the imputed rental costs and related building depreciation and interest. Since rental costs, building depreciation and building interest are 100 percent attributable based upon market values, there are no corresponding institutional costs for these cost components. Therefore, these costs are removed and the piggyback factors are recomputed to derive the appropriate piggyback factors for institutional costs.

EXHIBIT NAA-1G

SOURCES OF DATA FOR EXHIBITS

Exhibit NAA-1A

Cost data for each cost segment from USPS-15H, Cost Segments and Components,
Test Year 1998, Proposed Rates, with Workyear Mix Adjustment.

Cost data for Cost Segment 14 are adjusted per UPS/USPS-T33-36.

Piggyback factors from Library Reference H-77.

Other Costs & Adjustments are derived by subtracting the attributable costs of mail processing,
transportation, window service and delivery service from the total attributable costs for each subclass
Total Attributable Costs from USPS-30F, Column (1), revised 9/19/97.

Exhibit NAA-1B

Page 1: All cost data from Exhibit NAA-1A.

Page 2: Percentages derived by dividing attributable costs for each subclass by total
attributable costs for that function.

Exhibit NAA-1C

Sources given on exhibit.

Exhibit NAA-1D

Weighted attributable costs derived by multiplying the cost data in Exhibit NAA-1B, page 1
by the weighting factors on line 39.

Weighting factors from Exhibit NAA-1C, line 5.

Exhibit NAA-1E

USPS Contribution at Proposed Rates from USPS-30F, Column (4), revised 9/19/97.

Weighted attributable costs from Exhibit NAA-1D.

Exhibit NAA-1F

Sources given on exhibit.